[0058] WHAT IS CLAIMED IS:

1. A surgical instrument, comprising:
a housing;
an electrical power source;
an output shaft extending from the housing;
a rotor coupled to the output shaft; and
a stator having:
a winding selectively connectable to the electrical power source; and
a magnetically conductive portion disposed about the rotor and comprising a plurality of laminations,
wherein one or more of the plurality of laminations has a thickness of less than about 0.25 mm;
wherein selectively connecting the electrical power source and the stator windings imparts rotary motion to the output shaft via the rotor.

2. The surgical instrument of claim 1, wherein each of the plurality of stator laminations has a thickness of less than about 0.25 mm.

3. The surgical instrument of claim 1, wherein the one or more laminations has a thickness of less than about 0.2 mm.

4. The surgical instrument of claim 2, wherein each of the laminations has a thickness of less than about 0.2 mm.

5. The surgical instrument of claim 1, wherein the one or more laminations has a thickness of less than about 0.15 mm.

6. The surgical instrument of claim 2, wherein each of the laminations has a thickness of less than about 0.15 mm.

7. The surgical instrument of claim 1, wherein the one or more laminations has a thickness of less than about 0.1 mm.

8. The surgical instrument of claim 2, wherein each of the laminations has a thickness of less than about 0.1 mm.

9. The surgical instrument of claim 1, wherein the one or more laminations has a thickness of about 0.2 mm.

10. The surgical instrument of claim 2, wherein each of the laminations has a thickness of about 0.2 mm.

11. The surgical instrument of claim 1, wherein the one or more laminations has a thickness of about 0.1 mm.

12. The surgical instrument of claim 2, wherein each of the laminations has a thickness of about 0.1 mm.

13. The surgical instrument of claim 1, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 30 mm.

14. The surgical instrument of claim 13, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 25 mm.

15 The surgical instrument of claim 14, wherein the housing, at least in a portion housing the stator, has an outer diameter of between about 20 mm and about 22 mm.

16. The surgical instrument of claim 14, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 20 mm.

17. The surgical instrument of claim 13, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 16 mm.

18. The surgical instrument of claim 13, wherein the housing, at least in a portion housing the stator, has an outer diameter of between about 15 mm and about 16 mm.

19. The surgical instrument of claim 13, wherein the stator has a length of less than about 100 mm.

20 The surgical instrument of claim 19, wherein the stator has a length of less than about 60 mm.

21. The surgical instrument of claim 20, wherein the stator has a length of less than about 50 mm.

22. The surgical instrument of claim 20, wherein the stator has a length in the range of between about 40 mm and about 50 mm

23. The surgical instrument of claim 10, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 25 mm, and
wherein the stator has a length of less than about 50 mm.

24. The surgical instrument of claim 12, wherein the housing, at least in a portion housing the stator, has an outer diameter of less than about 22 mm, and
wherein the stator has a length of less than about 50 mm.

25. An electric motor for use in a surgical procedure, comprising:
a motor output member;
a driven member coupled to the motor output member; and

a driving member having a winding and a magnetically conductive portion disposed proximate the driven member such that energizing the driving member imparts motion to the driven member,

wherein the magnetically conductive portion comprises a plurality of laminations, and

wherein one or more of the laminations having a thickness of less than or equal to about 0.2 mm.

26. The electric motor of claim 25, wherein each of the laminations have a thickness of less than or equal to about 0.20 mm

27. The motor of claim 26, wherein each of the laminations have thickness of less than or equal to about 0.15 mm.

28. The motor of claim 25, wherein the motor is adapted for placement in an instrument having an outside diameter of less than about 25 mm.

29. The motor of claim 27, wherein the motor is adapted for placement in an instrument having an outside diameter of less than about 25 mm.

30. The motor of claim 29, wherein the stator has a length of less than about 50 mm.